ABSTRACT OF THE DISCLOSURE

A method and apparatus for randomly selecting which of a plurality of memory modules data packets are to be written to in a network packet buffer.

5   Memory modules are coupled in parallel to effectively increase the overall memory bandwidth. In order to minimize latency, each time an incoming packet is received by the network switch, a scheduler randomly selects one of the memory modules to which that packet is to be stored upon. And because the data is randomly distributed amongst the different memory modules,

10   read operations will be similarly random across all memory modules. This ensures minimal read latencies when reading data from the memories. Thereby, the delays are minimized.